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AUTHOR Schoen, Sharon F.
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ABSTRACT

The paper presents one strategy for sequencing the task assessment of severely handicapped individuals to facilitate more precise and concise assessment. The proposed sequence includes the following steps: (1) clarifying the purpose for testing, (2) collecting background information to increase the possibility of obtaining more accurate and pertinent information, (3) observing in the natural environment to furnish candid forms of information, (4) selecting test instruments, (5) answering the assessment question, and (6) collecting ongoing data. Each step is addressed in terms of procedures. (CL)

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A Systematic Strategy for the Assessment of Individuals with Severe Handicaps

Sharon F. Schoen

Lehigh University

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Abstract

The assessment of individuals with severe handicaps is a complex task, yet one which is integrally tied to the educational and related services provided to these persons. With services broadened by evolving legislation and litigation as well as technological advancements in the field, the role of assessment has been magnified. Yet numerous problems beset the assessment of individuals with severe handicaps, underscoring the need to persist in refining the process. This paper presents one strategy for sequencing the task to facilitate more precise and concise assessment.

A Systematic Strategy for the Assessment of Individuals with Severe Handicaps

The assessment of individuals with severe handicaps is a complex task, yet one which is integrally tied to the educational and related services provided to these persons. With services broadened by evolving legislation (e.g., N.J.S.A. 18A:46-1 et seq.) and litigation (e.g., Armstrong v. Kline, 1979) as well as increasing precision of instructional strategies (Brown, Branston, Nietupski, Pumpian, Certo, & Gruenewald, 1979; Brown, Nietupski, & Hamre-Nietupski, 1976; Haring, White, & Liberty, 1977), the role of assessment has been magnified. Assessment must function to document the effectiveness of programs (Conroy, Efthimiou, & Lemanowicz, 1982), identify the most efficient techniques (Gresham, 1979; Mithaug, 1979), and satisfy a myriad of other legal, instructional, and therapeutic purposes.

The assessment of individuals with severe handicaps, however, is beset with problems. Knowledge limitations, inadequate and/or obsolete training, lack of adequate assessment measures, and the idiosyncratic characteristics of the target population combine to make assessment difficult (Du Bose, 1982). Comprehensive testing, itself, can consume 2 to 4 weeks of time (Sailor & Haring, 1977). Confronted by such a tedious task, examiners may benefit from systematic strategies for conducting more precise and concise assessment. The aim of this paper is to offer one strategy for sequencing the task.

The initial step in assessment is to clarify the purpose for testing. Subsequently, background information should be collected to increase the possibility of obtaining more accurate and pertinent information.

For example, Bradley and Caldwell (1976) found the measurement of home environment variables to improve the detection of children who require early identification. Next, observation in the natural environments furnishes candid forms of information, e.g., interaction between student and teacher and ecological variables that may affect learning. Implementation of assessment measures, then, supplies the raw data of performance behavior to answer the original assessment question. Finally, it is only through systematic and ongoing assessment that confidence can be achieved in the goal of demonstrating significant growth in pupils' ability to reach greater independence and participation in society (Smith and Snell, 1978).

Insert Figure 1 about here

Clarifying the Assessment Question

McLoughlin and Lewis' (1981) definition of assessment as a systematic process of asking educationally relevant questions about a student's learning behavior attests to the need to formulate decisive questions. Delineating the question or set of questions initiates the assessment process, a process which serves a myriad of purposes. Prototypic purposes include (a) screening to identify individuals who will require early services, (b) classification and placement to determine eligibility for services and location of service delivery, (c) individual program planning to develop tailored education plans that meet the particular needs of the subject, (d) overall program evaluation to assess appropriate curriculum and learning environment (e.g., Fialkowski v. Shapp, 1975), and (e) ongoing individual assessment to allow immediate modification in instruction as well as document discrete changes in behavior. To structure the

assessment process, it is advantageous to pose questions that will provide the answers to the major legal and instructional concerns (Mc Loughlin and Lewis, 1981). The process itself will be punctuated by reiteration of the questions to facilitate and focus the examiner's efforts (e.g., determination of appropriate tests and procedures and guidance in the analysis and interpretation of assessment findings).

For example, consider the hypothetical assessment question, "What are the student employment potential and skill needs?" Parameters and content of the assessment are stipulated within the question, indicating the need to correlate assessment information obtained from standardized tests to determine levels of employment and employment-related skills (e.g., work skills, communication skills, self-care skills, transportation skills, social skills) and from ecological inventory strategies to delineate the most relevant and functional activities that occur in community job sites (Brown, Branston-Mc Clean, Baugart, Vincent, Falvey, & Schroeder, 1979; Mithaug, Hagmeier, & Haring, 1977). Such a correlation would reveal the quantity and quality of skills that require training/improvement for employability.

Collecting General Background Information

The collection of background information takes two forms: (a) the passive perusal of existing information and, (b) the active gathering of updated or new information. The utilization of existing information is a cost efficient means of using relevant data, thereby, eliminating duplication of effort.

Examiners need to selectively extract significant noninstructional as well as instructional factors from records, where they exist. Since many learning and behavioral problems are directly or indirectly caused

by the physical problems commonly found in individuals with severe handicaps (Dever & Knapczyk, 1980), and since there is a likelihood that drug therapies interact with environmental variables to influence educational outcomes (Simeonsson & Simeonsson, 1982), noninstructional considerations must include the medical dimensions. Yet, a delicate balance must be struck between inclusion and exclusion of material so as not to overlook facts which can affect the performance of learners, and not to unnecessarily encumber the assessment process. Valuable sources of established information include general screening devices of educational, medical, social, and psychologic origin, related evaluations (e.g., speech, hearing, vision, motor), medical histories, and school performance records.

The collection of updated or new information should begin with an interview of the person posing the assessment question, in other than standard cases (e.g., individual educational plan updates). Engaging the student and the examiner in such a consuming task warrants justification of purpose. Subsequently, direct communication with the significant others who interact with the individual (e.g., teacher, family, employer, group home attendant) may reveal pertinent information. Commercial interviews such as the parent interview of the System of Multicultural Pluralistic Assessment can provide organization and/or content. Data derived from diverse sources form a composite of insights that clarify and foster the assessment process.

Observing in the Natural Environments

Observation provides examiners with unique information not readily attainable by other means. It examines specific skills, behaviors, interactions, and environments, confirms other findings or reports, and adds information to the quantitative and qualitative aspects of other

assessments, e.g., characterizing the ability to communicate with peers by noting number of exchanges in an interaction, mean lenth of utterance, primary location of spontaneous communication, and intelligibility of speech (Gerken, 1983). Observation should involve an assessment of student skills and interfering behaviors in natural environments (e.g., playground, home/group home, school, work) as well as an assessment of the environments themselves. While, in theory, observation of student and environment present seemingly dichotomous foci for assessment, in practice, the two merge to form an interactive model of behavior. Consequently, informal and formal observational techniques can only serve to place emphasis upon the assessment of one of the two observational foci.

Student observation may include an account of the learning process and product, and an analysis of interfering behaviors. For the former, the observer will need to identify how the student performs the task and analyze the resultant product; for the latter, the observer will need to distinguish the limitations imposed by deficit-oriented conditions such as physical dysfunctions or inappropriate behaviors such as self-stimulation, self-abuse, and lack of attending behavior (Campbell, Note 1). Observational techniques to assess the student include anecdotal records (e.g., mean length of utterance and sentence structure for language programming), checklists (e.g., the AAMD Adaptive Behavior Scales and the Autism Behavior Checklist of the ASIEP), guides (e.g., the Du Bose and Langley guidelines for observing behaviors), behavior rating scales (e.g., Balthazar Scales of Adaptive Behavior), and systematic observation

of behavior (i.e., analysis of antecedent, behavior, consequence).

Since individuals with severe handicaps often behave differently in differing environments, observation of the student in natural environments will allow the examiner to identify the persons, materials, reinforcers, cues, models, and prompts that elicit optimal performance. Such information applied to the assessment situation enhances the reliability of assessment data, since the child's best responses are more predictive of future performance (Haring, 1976). Here again, the five observational techniques can be applied to assess environmental factors influencing learning. Anecdotal data give a subjective, narrative account of the behavior that has been observed; checklists more objectively detail descriptors of behavior; guides provide provocative questions to structure observation; behavior rating scales indicate both the occurrence and degree of a behavior; systematic observation most precisely defines the behavior through, direct, objective, and precise recording (Gerken, 1983; Snell, 1978).

Testing

A distinct purpose of assessment and precise collection of background and observational information have implications for the selection of test instruments.

These souces of information assist in answering the operational questions of:

(1) How should an assessment of an individual with severe handicaps be conducted?;

(2) What should be included in such an assessment?;

(3) Who should conduct the assessment?

How to Test

Since the primary reason for conducting any assessment would be to obtain objective and meaningful information about an individual, data-based assessment is required (Rosenberg & Sindelar, 1982). This form of assessment can be defined as a direct, dynamic assessment of observable behaviors which provides precise information that is needed to describe the skills, abilities, and characteristics of the individual. Secondary sources of information will not suffice at this point of the assessment process, where substantive data must be documented.

Logically, data-based assessment should be conducted to allow maximum student participation. For some, this may involve identification and/or instruction of a mode of communication by which the student can both understand examiner directions and voluntarily respond. Duncan, Sbardellati, Maheady, and Sainato (1981) advise that the response mode be reliable, consistent, simple to execute, and measurable.

Another procedural consideration is that a test result accurately reflects the factors which the test purports to measure, rather than the child's physical/sensory impairment, cultural deprivation, or pharmacological reaction. Consequently, modifications in test instruments have been suggested to minimize the effects of some confounding conditions (Dollar & Brooks, 1980; Duncan et al., 1981). Changes in the form of presentation (e.g., size, volume, arrangement) or in the sample chosen

to test knowledge of a concept may accommodate visual auditory, and physical handicaps; substitution of items which represent equivalent experiences may negate the effect of culturally unfair tests; and overlapping content in diverse forms of assessment may reveal marked discrepancies and reversals in performance which could indicate physiological fluctuations due to pharmacological management (Simeonsson, Huntington, & Parse, 1980). Such attempts at modifying materials, content, and/or presentation embody the spirit of nondiscriminatory assessment; however, empirical analysis of the effects of test modification is needed. Consequently, Di Bose (1982) cautioned that adapted tests may violate test validity and may cause individuals with handicaps to be viewed differently.

What to Test

The extent to which the assessment question is adequately answered, in part, depends upon the scope and quality of the instruments selected. In general, the use of varied techniques to assess varied areas of performance across varied criteria should provide more substantive data from which to analyze the individual's intricate pattern of development. Larry P. v. Riles (1979) ruled that diverse procedures, ranging from norm-referenced to child-referenced testing, be employed to assess the student's skills, abilities, and characteristics. Since numerous forms of assessment exist (e.g., error pattern analysis, task analysis, criterion-referenced tests, standardized tests, informal testing), evaluation of an instrument/approach in terms of use, quality, and resultant information will guide critical review and ultimate selection.

The compilation of information from such data sources needs to

satisfy the terminal goal of assessment - objectively answering pertinent questions that enable and/or promote the independent functioning of an individual in society. Simeonsson et al. (1980) suggested that multivariate documentation of several scores, process emphasis upon behavioral characteristics, clinical judgment for corroboration, and identification of varied behavioral domains (i.e., state, temperament, rhythmic habit patterns, communication, and social development) may more sensitively reflect the uniqueness of children with severe handicaps. Depending upon the assessment question, a combination of norm-referenced, criterion-referenced, and child-referenced instruments that address ability, characteristics, and skills across domains, environments, and stages may comprise appropriate facets of assessment.

Who should Test

The quality and quantity of personnel effort is frequently connoted within the assessment question or by the instrument itself. For example, ongoing testing to determine student acquisition of a task analyzed skill would require teacher evaluation and social validation; whereas, assessment to determine eligibility for special placement would entail interdisciplinary team effort and varied instruments and measures. Yet, at all levels, outcome will be affected by examiner expertise in (a) selecting and developing quality instruments that have direct implication for answering the assessment question, (b) selecting and tailoring tests to meet the idiosyncratic needs of the individual, (c) eliciting student participation through effective means of controlling interfering behavior and motivational problems, (d) administering and scoring tests objectively to more closely represent actual performance, (e) interpreting results through analysis and synthesis of data, and (f) communicating test results and implications.

Bricker and Campbell (1980) recently suggested new skills for examiners in the area of programming. Subsequent to interdisciplinary selection of instructional targets, each specialist would analyze student performance in the context of ongoing programming, develop precise training strategies, and train others to implement the program. This approach extends the role of the examiner by operationalizing the responsibility of communicating assessment implications through direct teaching and demonstration.

Answering the Assessment Question

Ultimate response to the assessment question must be based upon accurate and integrated interpretation of the data to reveal a composite picture of the individual. Further, it must specifically address the assessment question to facilitate treatment decisions. For example, the decision to extend school year programs demands a data display that demonstrates regression in skills and behaviors. Instructional decisions in individual programming require the translation of skills into functional, chronologically appropriate goals in least restrictive settings, the incorporation of parent priorities and concerns, the assimilation of numerous skill needs in one functional activity (e.g., fine motor skills highlighted in dressing skills), and the generalization and validation of training. And, response to accountability questions regarding student progress necessitate ongoing data displays of skill development, couched against expected rates of acquisition.

Collecting Ongoing Data

In some cases, definitive answers will be derived from a unitary assessment (e.g., screening); however, in most, it will be appropriate to continue assessment for formative and summative purposes. Continuous

formative decisions involve the assessment of student performance and instructional interventions. Student performance data permit greater sensitivity to student learning style and progress. For example, task analytic instructional processes to teach difficult tasks can be conducted to indicate the level of prompt used to elicit a response. Graphs of ongoing weekly tests reflect results in easily interpreted forms. Perusal of the data denotes progress in two ways: promotion to a lesser degree of prompt and independent performance of subskills. In turn, dynamic collection of student performance data provides the basis for evaluating instructional interventions. Monitoring student progress through ongoing observation, probing, and recording has direct implication for the felicitous and precise design, selection, and adaptation of educational strategies.

Summative assessment is required for instructional decisions to compare student skill acquisition with expected progress lines. Generally, such global assessments demand annual administration of data-based instruments to document a tested measure of performance rather than an interview or checklist of observed and/or reported behavior. Data from these sources determine whether students have, indeed, achieved the long-range, instructional goals that will promote independence in least restrictive environments.

Conclusion

Purposes for engaging individuals with severe handicaps in assessment activities are burgeoning. Those that have been identified can be subsumed under two general functions of assessment: legal compliance and technological advancement - both embracing the greater issue of improving the quality of services provided to persons with severe handicaps.

Yet numerous problems beset assessment, underscoring the need to persist in refining the process. This paper has presented one strategy for the systematic assessment of individuals with severe handicaps in order to facilitate and structure this tedious task.

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Snell, M. E. Systematic instruction of the moderately and severely handicapped. Columbus: Charles E. Merrill, 1978.

Figure Caption

Figure 1. A systematic strategy for the assessment of individuals with severe handicaps.